



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

AMJ

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
-----------------	-------------	----------------------	---------------------

08/988,537 12/10/97 ISHIBASHI K 018775-718

021839 LM01/0411
BURNS DOANE SWECKER & MATHIS
P O BOX 1404
ALEXANDRIA VA 22313-1404

EXAMINER

AWAD, A
ART UNIT PAPER NUMBER

2775
DATE MAILED: 04/11/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
08/988,537

Applicant(s)
Ishibashi et al.

Examiner
Amr Awad

Group Art Unit
2775



☒ Responsive to communication(s) filed on Jan 18, 2000.

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-20 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-20 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☐ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Art Unit: 2775

DETAILED ACTION

Drawings

1. The corrected or substitute drawings were received on 01/18/2000. These drawings are accepted.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tabata (US patent NO 5,579,026) in view of Hirano et al (US patent No. 3,812,489; hereinafter refereed to as Hirano).

Tabata (figures 1-2) teaches an image observation apparatus (head mounted display) including a main body (1) which has an image display device (7R and 7L); an operational member (controller (11)) which is operated manually in order to give instruction to the image observation device; a detector for detecting a posture of the main body; and a controller (part of the controller (11)) for controlling an image which is displayed on the image display device in response to a signal which is output from the detector; see abstract, column 3, lines 50-63 and column 5, lines 19-55.

Art Unit: 2775

Tabata does not teach an embodiment wherein the controller part is provided on the main body. Tabata does not teach that the controller stops controlling the image which is displayed on the image display device when the operational member is operated.

Hirano teaches desk top calculator includes a display device which displays the numerical information (as it is well known the calculator has a display that is connected to the operational keys). Hirano teaches having the controller (the display controller) stops linking the signal to the image displayed when the operational member (operational keys of the calculator) is operated (for that Hirano teaches that the controller stops displaying for a predetermined period of time after one of the operational keys is being operated; see column 4, lines 34-60, the abstract and column 2, lines 9-13.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to use Hirano's teaching of having the display suspended when an operational key is operated to Tabata's device so as motivated by Hirano, to minimize the power consumption of the device; see column 2, lines 9-13.

4. Claims 5-8, 12-13 and 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tabata in view of Tonosaki (US patent NO. 5,635,948).

As to claims 5, 12 and 18-20, Tabata (figures 1-2) teaches an image observation apparatus (head mounted display) including a main body (1) which has an image display device (7R and 7L); an operational member (controller (11)) which is operated manually in order to give instruction to

Art Unit: 2775

the image observation device; a detector (the second detector) for detecting a posture of the main body (see figure 10); and a controller (part of the controller (11)) for controlling an image which is displayed on the image display device in response to a signal which is output from the detector (second detector); see abstract, column 3, lines 50-63 and column 5, lines 19-55.

Tabata does not teach a first detector which is provided in the main body and which detects that a user observes an image being displayed on the image display device. Tabata does not teach the controller stops controlling the image being displayed on the image display device when the first detector detects that the user does not observe the image the image being displayed on the image display device.

Tonosaki (figure 1) teach a head mounted display that includes a detector (first detector) for detecting whether or not the observer is observing the display device; see abstract. Tonosaki teaches a controller for controlling the image being displayed and wherein the controller stops controlling the image being displayed on the image display device when the first detector detects that the user does not observe the image being displayed on the image display device; see column 1, line 65 through column 2, line 9.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate Tonosaki's teaching of controlling the image displaying based on whether or not the observer is observing the display device to Tabata's device so as motivated by Tonosaki, to prevent waste of power dissipation thereby effectively using a limited power supply capacity for effective long time; see column 1, lines 46-53.

Art Unit: 2775

As to claims 6-8 as seen from the flow charts of figure 3A and 3B that Tonosaki teaches a software instruction is given to the display device to allows or prohibits a control of the image (for that Tonosaki teaches an instruction to turn the power off in case the observer is not detected).

As to claim 13, since Tabata teaches detecting the posture of the display device, therefore, the claim is broad enough that detecting whether the main body is put on the rest or not can be broadly reads on the detecting device detecting the posture (position) of the device.

5. Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tabata and Hirano as applied to claim 1 above, and further in view of Takasu Tomoji (Japanese patent Publication NO. 03056923A; hereinafter referred to as Takasu) (provided by the Applicant in the information disclosure statement).

Note the discussion of Tabata and Hirano above. Tabata and Hirano do not expressly teach a camera which forms the image which displayed on the image display device (image forming device) (claim 4) and wherein the controller controls the image which is displayed thereon by controlling the posture of the camera.

Takasu (figure 1) teaches a head mounted display device wherein the a camera which forms the image which displayed on the image display device (image forming device) (claim 4) and wherein the controller controls the image which is displayed thereon by controlling the posture of the camera; see abstract.

Art Unit: 2775

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate Takasu's teaching of having a camera to form the displayed images and wherein the controller controls the image by controlling the posture of the camera to Tabata's modified device so as motivated by Takasu, to avoid manually controlling the viewing direction.

6. Claims 9-11 and 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tabata and Tonosaki as applied to claim 5 above, and further in view of Takasu.

Note the discussion of Tabata and Tonosaki above. Tabata and Tonosaki do not expressly teach a camera which forms the image which displayed on the image display device (image forming device) (claims 11 and 16) and wherein the controller controls the image which is displayed thereon by controlling the posture of the camera.

Takasu (figure 1) teaches a head mounted display device wherein the a camera which forms the image which displayed on the image display device (image forming device) (claims 11 and 16) and wherein the controller controls the image which is displayed thereon by controlling the posture of the camera; see abstract.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate Takasu's teaching of having a camera to form the displayed images and wherein the controller controls the image by controlling the posture of the camera to Tabata's modified device so as motivated by Takasu, to avoid manually controlling the viewing direction.

Art Unit: 2775

Response to Arguments

7. Applicant's arguments filed 01/18/2000 have been fully considered but they are not persuasive.

Applicant (top of page 6) argued that the combination of Tabata and Hirano does not teach or suggests that the controller stops linking the signal to the image which is displayed on the image display device. Examiner respectfully disagrees.

As described above in the office action, Hirano teaches that after the completion of arithmetic operation, the numerical information is not displayed. Further, Hirano teaches that the pattern "H" is displayed to represent that the computer is in operation; see column 4, lines 52-60. This means that by depressing the calculator keys of Hirano to perform a mathematical operation, and while still in operation, the linking of images stops. In another word, even though, the depressing of the key has stopped, the mathematical operation activated by the key still running. Hirano By comparing the above teaching of Hirano with the claimed limitation in claim 1, it is respectfully submitted by the examiner that Hirano's teaching reads on the claimed limitation.

Applicant (middle of page 6) argued that Hirano's patent which involves a desktop calculator is unrelated to the subject matter of the present invention and therefore, there would be no motivation to combine Hirano with Tabata patent. Examiner respectfully disagree. Applicant's invention as claimed is directed to "an image observation apparatus". This limitation is broad enough to read on a calculator since the calculator is an image observing device. The motivation

Art Unit: 2775

for combining the two device is indicated in the office action above “to minimize the power consumption of the device”.

Applicant (bottom of page 6) argued that the purpose of Hirano’s device is to reduce power consumption in the calculator by suspending the display after a period of inactivity, and that the purpose of Hirano’s invention is entirely different from that of the present invention, which is to eliminate user confusion associated with a personal display apparatus by suspending the linking of image when the user does not observe the image or does not want to observe the image. It is respectfully submitted by the Examiner that the purpose of the invention is not part of the claim and therefore, the motivation of Hirano “saving power” can be used to combine the two references. It is also noted that, if it is obvious to combine references for one reason it is obvious to combine references for all reasons. In re Graf, 145 USPO 197 (CCPA 1965), In re Finsterwalder 168 USPO 530 (USPO 1970).

Applicant (page 7) argued that Hirano does not suspend the numerical display for a predetermined when the key is operated. As discussed above, Hirano teaches that while the key is not depressed when the device suspends numerical display, the operation of the device (the execution of the mathematical operation which was activated by the key) is still active.

Applicant (page 8-90) argued that the combination of Tabata and Tonosaki because the purpose of the use-state detector in the Tonosaki is to reduce power consumption by interrupting the power supplied to the entire apparatus or to some elements of the apparatus. Further Applicant argued that Tonosaki reference, if applied to the present invention, would destroy the

Art Unit: 2775

image state of the invention as claimed in claim 5 because power to the entire device would be turned off. Thus consistent images would not be observed before and after a period of non-observation. Examiner respectfully disagree, there is no limitation in claim 5 to claim that turning off the power of the device is not permissible, having a “consistent images” is not part of the claim. Therefore, having all or part of the power being turned off would not effect the reference from fairly teaching the claimed limitation, since the limitation argued by the Applicant is not part of the claim.

Applicant (page 11) argued that the limitation “the controller sets at least one setting condition of the image observation apparatus to a predetermined condition when the first detector detects that the user stops observing the image.” is not disclosed by either the Tabata or Tonosaki. Examiner disagrees. The indicated limitation is broad enough that is simply read on the cited art “Tonosaki” as having the one setting condition being the turning off of the power. As to applicant’s argument Tonosaki is having the power turned off, this argument has been addressed above with regard to the rejection for claim 5.

As to Applicant’s argument (bottom of page 11) that the motivation of claim 12 is substantially similar to claim 5 --to reduce confusion of the user by returning the apparatus to a recognizable condition after a period of non-observation, again this limitation is not claimed.

Conclusion

Art Unit: 2775

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

9. **Any response to this final action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 308-9051, (for formal communications intended for entry)

Or:

(703) 308-6606, (for informal or draft communications, please label

"PROPOSED" or "DRAFT")

Art Unit: 2775

hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amr Awad whose telephone number is (703) 308-8485. The examiner can normally be reached on Monday--Friday from 7:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Saras, can be reached on (703) 305-4718.

Amr A. Awad

Patent Examiner

April 06, 2000.


DENNIS-DOON CHOW
PRIMARY EXAMINER